

REMARKS

Claim Objections

Claims 25, 26, 30, 41, and 42 were objected to because they contained capitalized words in the body of the claim.

Claims 25, 26, and 30 have been amended accordingly. Claims 41 and 42 are among the claims canceled with this submission.

Claim Rejections – 35 U.S.C. § 102

Claims 24-46 were rejected under 35 U.S.C. § 102 for being anticipated by DE 100 32 340 (referred to through Dominke, US 6,640,923 B1).

Claim 24 has been amended to include the limitations of claim 26. Accordingly, claim 26 has been canceled. Likewise, claims 34-46 directed to a device have been canceled.

Dominke discloses a power steering system adding steering torque to assist the driver of a vehicle with steering during all driving conditions. Dominke's system is not a system for the stabilization of a vehicle in an unstable driving condition. Dominke merely realizes that the application of an additional steering torque and a "driving dynamics regulator," i.e. electronic stability control, may influence each other. But Dominke's concern is with real-time speed applying the steering torque to the steered wheels, generally the impossibility to control steering and driving dynamics independently of each other and the difficulty to integrate additional functions into the system. (column 1, lines 32-44). In order to manage steering torque and driving dynamics at the same time, Dominke suggests to apply the additional steering torque speed dependent and to use a steering motor directly acting upon the steered wheels of the vehicle instead of the steering column. (column 1, line 54 to column 2, line 9).

The present invention uses a different approach. First of all, the steering torque is applied to assist the vehicle's stability control only during unstable driving conditions (see Background of the Invention, preamble of claim 24), not as a general feature of a power steering system. Paragraphs 13 and 14 of the present specification, read as follows:

However, it has shown then that the application of the additional steering torque can cause

instabilities, especially in vehicles which are equipped with an ESP controller for controlling a yaw rate deviation. This could be deduced from the fact that the reference yaw rate is influenced by the steering movements of the driver when assisted by the additional steering torque. The reciprocal influencing of the value of the additional steering torque and the value of the reference yaw rate partly resulted in oscillations in the yaw rate, causing the vehicle to 'build up'.

To overcome this problem, it is arranged for in a favorable embodiment of the invention that the additional steering torque is discontinued when the absolute value of the instantaneous yaw rate of the vehicle irrespective of the sign drops below a value of the reference yaw rate which is established at the time of start of an unstable driving situation.

Dominke does not recognize the problem of yaw rate oscillations and does not discontinue the steering torque support when the actual yaw rate falls below a reference yaw rate that was determined when the vehicle entered into an instability. The present invention solves the problem of yaw rate oscillations by discontinuing the additional steering torque once the vehicle has returned to a yaw rate below the yaw rate determined at the time an unstable condition was detected.

Since Dominke's system provides general steering support during all driving conditions and does not solve the problem of yaw rate oscillations, claim 24 as presented is believed to be patentable. Remaining claims 25 and 27-33—directly or indirectly—depend on claim 24 and are thus assumed to be allowable as well.

Respectfully submitted,



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